therefore be disregarded. His new *stemma* accordingly includes only GLL²M, and shows no such troublesome serpentine lines of intertwining as Mr. Garrod's.

Mr. Housman has made one step in advance since 1903, even though it has not carried him very far. At that time he was apparently quite content to depend for his knowledge of the actual readings of the MSS upon the published collations or excerpts made by others, even when he had little respect for their judgment otherwise. As late as 1907 he expended considerable ingenuity in establishing (*Class. Quar.*, I, 290–98), by a comparison of the excerpts from M printed by Robinson Ellis (*Class. Rev.*, VII, VIII) with an unpublished collation of M by Gustav Loewe (cod. MS philol. 139 in the library of the University of Göttingen) and with readings of RUV, the grave probability that a number of the striking readings ascribed to M by Professor Ellis must be mere errors of the excerptor, and did not stand in the way of the belief that RUV are all descendants of M. Mr. Housman has now actually obtained photographs of M and L, and has gone so far in the case of G as at least to compare the readings of Thomas (1888) with those of Bechert (1900), and to secure the judgment of the curator of MSS at Brussels where they disagree. In the case of M the photographs apparently confirm the acute inferences he drew in 1907 about certain of the excerpts published by Mr. Ellis. The experience might well indicate to a text-editor the advisability of autopsy, even at a considerable expense of time, trouble, and money. Happy the editor who needs for the support of his judgment no more immediate and precise witness than photographs can supply! When will the harder lesson be generally learned, of the necessity of collations personally made and reviewed with painstaking accuracy, and with the comparison in presence of the MSS of any collations previously made by others—all this, and in addition, not at all in substitution, the possession of photographs, where that is possible? Even then error may arise between the collation and the printed *apparatus criticus*. It is quite possible to see that Mr. Ellis' observation and recorded note in the case of several of the variants referred to above may not have been at fault, but that the blunders appeared in the process of the later transcription and arrangement for printing. There is one satisfaction: if Mr. Housman had himself collated M, or obtained his photographs of it before 1907, we should have been deprived of the enjoyment of the admirable specimen of reasoning afforded in his article of that year.   E. T. M.

A Commentary on Herodotus with Introduction and Appendixes. By W. W. How and J. Wells. 2 vols. Oxford: Clarendon Press, 1912. Pp. 446, 423. 7s. 6d. each.

This book "is intended principally for the use of undergraduates," but the university teacher also will find it a convenient and reliable book of

reference. The notes "are almost entirely on the subject-matter." Those on textual and grammatical points are few and unimportant. Subjects requiring lengthy discussion are handled in the appendixes, of which there are fifteen in the first volume, treating of Lydian, Assyrian, Median, Persian, and Egyptian history, geographical, racial, and chronological questions; and seven in the second, on Sparta, Marathon, Thermopylae, Salamis, Plataea, and the numbers of the armies and fleets. These are excellent summaries, giving the results of the most recent discussions. At first sight one may feel that much in the second volume is simply a boiling-down of Macan, but it would be unfair to Mr. How not to admit that he has handled the evidence with independence of judgment. The later appendixes, however, do leave the impression that Macan, Grundy, and Munro are almost the only recent writers worth consulting on the problems discussed. Though the omission of many references to authorities in foreign languages may be justified by the purpose of the book, one might surely expect to find some mention of Wright's *Campaign of Plataea*, for example.

The introduction on the life and work of Herodotus is admirably done; brief, yet omitting no important point, and thoroughly up to date. Eight good maps add to the value of the volumes.

Having said so much by way of commendation, I may select a point or two for criticism. The argument of Munro on the numbers of the Persian army, ingenious, and, in some points, convincing as it is, in my opinion is valuable only as an explanation of the figures we have in Herodotus, but is utterly worthless for determining the actual size of the army of Xerxes. Munro is right in concluding that there were thirty *archontes*, instead of twenty-nine, from the fact that thirty times 60,000 (the archontal division given in 8.126 and 9.96) is 1,800,000, the number of the Asiatic land force; and because six generals-in-chief imply a multiple of six for the inferior officers. So far we are on fairly safe ground; but, plausible as it looks, it is not a certain inference that Hydarnes is the missing thirtieth *archon;* that the archontal division was therefore 10,000, not 60,000; that 60,000 was the division of the general-in-chief; and that Herodotus made the mistake of assuming it to be archontal and so reached his absurd figure, 1,800,000. Even if this result could be unhesitatingly accepted, I should not be able to follow Munro to the conclusion that Xerxes' army actually numbered 180,000. I have, in fact, no faith whatever in the reliability of army lists of that period—if, indeed, there were any army-lists. And what if the missing thirtieth archontal division of 60,000 could be otherwise accounted for ? Why not find it in the 24,000 of Xerxes' body-guard and the 36,000 Persian marines on board the ships ? The latter number, of course, would then be counted twice, but Munro himself takes for granted such little slips on the part of Herodotus.

An example of a note borrowed without sufficient thought is that of Stein on the arrangement of the 117 bricks upon which the golden lion of Croesus was set up at Delphi (I, 50). Stein assumes that the bottom layer

of the pedestal was 9×7 bricks, the second 7×5, the third 5×3, and the fourth the four bricks of pure gold. This gives us a pedestal 10½ feet long by 6¾ wide, and only one foot high; which is not a pedestal at all. It is absurdly low and long. If we assume that the lowest stage was made of three equal layers, 4×7 bricks each, the second of three, 5×2 each, and the third of three of one brick each, we get a pedestal six feet long, and twenty-seven inches high, which would put the head of the lion about on a level with the eye of the average spectator. It may be objected that this does not properly arrange the four bricks "of pure gold weighing two talents and a half each," but I suspect that these were the ones from which was made the "lion of pure gold weighing ten talents," and that there was no pure gold in the pedestal. Herodotus probably confused the items that were furnished him. Diodorus xv. 56 says there were 120 bricks.

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Das fünfte Buch der Ilias, Grundlagen einer homerischen Poetik. Von Engelbert Drerup. Paderborn: Ferdinand Schöningh, 1913. Pp. viii+451. M. 7.40.

The present division of the *Iliad* and *Odyssey* was unknown until the time of the Alexandrian scholars. This division was made for a reading public and is purely arbitrary, depending on the number of letters in the Greek alphabet. Often the book ends with no conclusion of the thought, e.g., the sentence with which *Od.* ii ends is not concluded in that book. No rhapsodist could recite at a single effort a poem of 15,000 verses; hence there must be a division into smaller unities, each unity like the whole having a beginning, a middle, and an end—each complete in itself, yet each a part of the greater unity of the whole. The poet could not have left these divisions to chance or caprice, but must himself have cared for the artistic production as well as for the artistic creation. The effect of the whole could be measured only by the effect of the parts. The parts must have been related to the whole much as the individual dramas of a tetralogy.

Professor Drerup has by repeated tests found that a reciter can pronounce about 500 verses per hour, and that two hours practically exhaust a reciter's powers; hence a rhapsodist would be limited to about one thousand verses at a single occasion. With this limit in mind he started to read the *Iliad,* and to his delight found that it divided itself into just such groups. The introduction of the *Iliad,* with the explanation of the motives of the poem, the plans for war, and the movement for battle, i.e., as far as to the Catalogue, made a rhapsode of 1,094 verses; then the Catalogue, perhaps not regularly recited, followed by the story of the making and the breaking of the truce, the inspection of the army, and the beginning of the fight, i.e., Books iii and iv,